Spring 2010 Name:

Quiz 1: Corporate Finance

Answer all questions and show necessary work. Please be brief. This is an open books, open notes exam.

1. The following are multiple-choice questions, with each one being worth ½ a point.

a. When managers over reach and put their interests over stockholder interests, they risk a backlash from stockholders. Which of the following is the best example of this backlash?
   i. The stock price goes up.
   ii. Managers are granted more stock options (to make them act like stockholders)
   iii. Activist investors (like KKR and Blackstone) target the company
   iv. Fewer stockholders return their proxies to vote at annual meetings.
   v. None of the above

b. Managers of firms that are held <u>mostly by institutional investors</u> are more responsive to stockholders than managers of firms that are <u>held primarily by individuals</u>.
   i. True
   ii. False

c. You are provided with a breakdown of stockholders and trading volume in a company:

Group	*% of stock held*	*% of trading volume*
Government	30%	5%
Insiders (Managers)	20%	5%
Domestic Institutions	15%	15%
Foreign Institutions	15%	60%
Individuals	20%	15%

The marginal investor in this company is most likely to be:
   i. Foreign institutions
   ii. Individuals
   iii. The Government
   iv. Insiders
   v. Domestic institutions

d. For stock price maximization to be the right objective, we have to assume that markets are efficient. After watching the price of his company's stock drop 20% after reporting higher earnings, the CEO points to the big price drop as evidence that markets are not efficient. Is this statement true?
   i. Yes.
   ii. No

2. Villa Mining is a gold mining company with operations in Peru and the United States. In the most recent year, it derived about half its revenues from each country and you have collected the following data:

- ➔ The 10-year US treasury bond rate is 3.5%. The Peruvian government has 10-year US \$ denominated bonds with an interest rate of 5.5% and a 10-year Peruvian Sul denominated bond with an interest rate of 8%.
- ➔ You have run three separate regressions:
  $\text{Return}_{\text{Western Mining}} = 0.08\% + 0.75\ \text{Return}_{\text{S\&P 500}}$
  $\text{Return}_{\text{Western Mining}} = -0.16\% + 1.50\ \text{Return}_{\text{Lima Index (Peruvian Index)}}$
  $\text{Return}_{\text{Western Mining}} = -0.04\% + 1.20\ \text{Return}_{\text{MSCI (Global Index)}}$
  Fifteen of the top seventeen investors in the firm are <u>global institutional investors</u>.
- ➔ The equity risk premium for mature markets (like the United States) is 4.5%. The volatility in the Lima Stock Index is <u>1.5 times the volatility in the Peruvian government bond</u>.

a. Estimate the cost of equity, <u>in US dollar terms</u>, for Villa Mining's US operations. (1 point)

b. Estimate the cost of equity, <u>in US dollar terms</u>, for Villa Mining's Peruvian operations. (2 points)

3. You have been asked to estimate the beta for Navarro Inc., a firm that operates in two businesses – software and technology consulting. The firm currently has 50 million shares trading at $ 50/share and $ 1500 million in debt outstanding and it derives 80% of its overall value from software and 20% from technology consulting. The unlevered beta is 1.2 for the software business and 0.9 for the technology consulting business. (The marginal tax rate is 40% for all firms.)

a. Estimate the current levered beta for the firm. (2 points)

b. Assume that you are considering a plan to sell half the software business and use the proceeds to do the following:
   - Invest 25% of the proceeds in the technology consulting business
   - Use the remaining proceeds to buy back stock

   Estimate the levered beta for the firm, if you go through with this transaction.

   (3 points)